21. Valley Utilities Water Company

The Valley Utilities Water Company service area is located north of Camelback Road, west of El Mirage Road, east of Litchfield Road, and south of Glendale Avenue. According to the ADWR Annual Water Withdrawal and Use Report, in the Valley Utilities Water Company service area in 1998, a total of 490 af of groundwater was pumped and delivered. Approximately eight af were delivered to other users and the remaining 481 af were delivered for use in the area.

A. Plans to Take and Use CAP Water

The Valley Utilities Water Company service area currently has no contract for CAP water. Under the Settlement Alternative, the Valley Utilities Water Company would receive 250 af of CAP water. That CAP water would be delivered for a 50-year contract period (i.e., from 2001-2051). The CAP water would be used to supplement both current and projected water supply demands over the next 50 years and would help reduce the continuing dependence on pumping groundwater from an overdrafted groundwater system. Table L-M&I-123 outlines the proposed allocations by alternative.

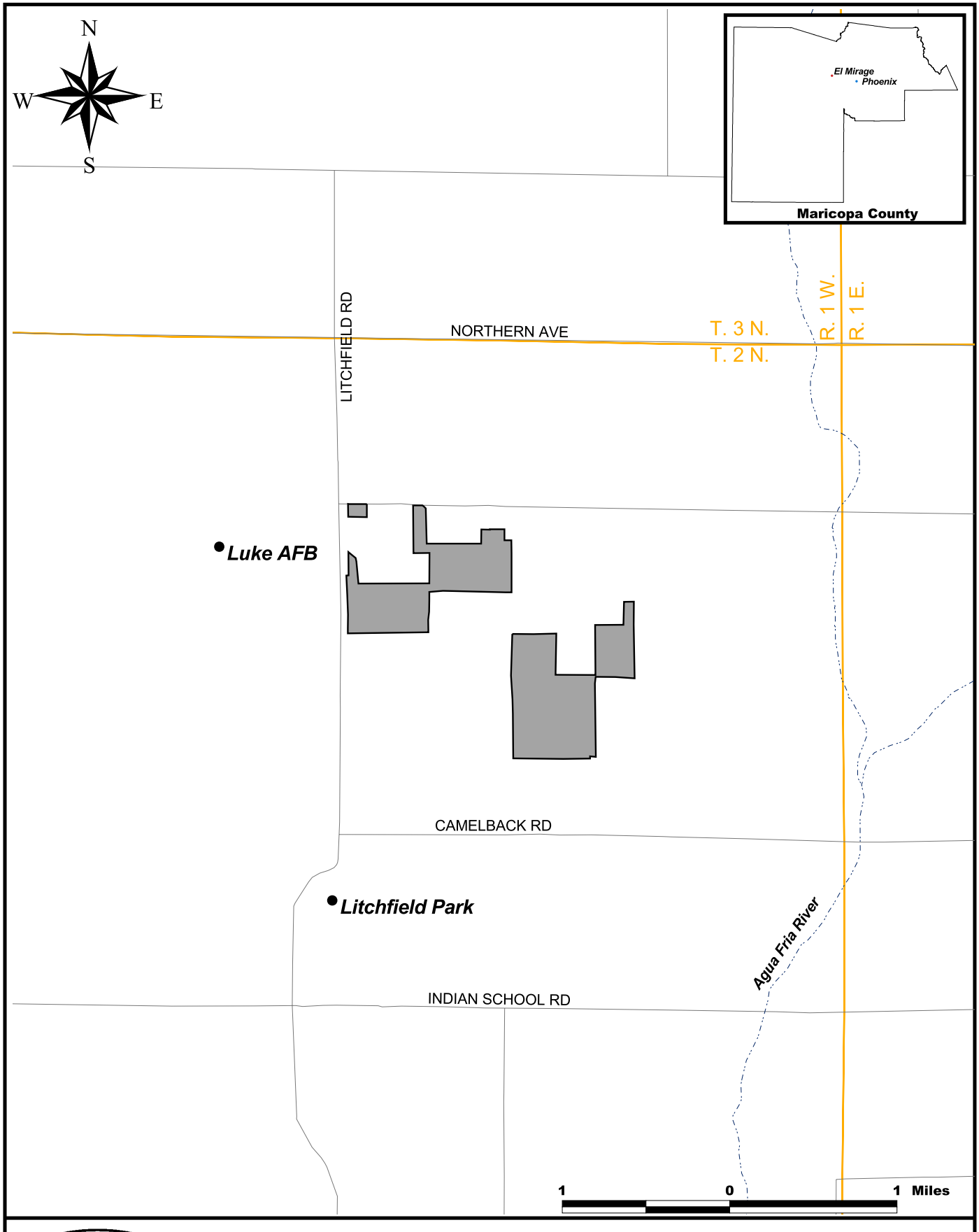
Table L-M&I-123
CAP Allocation Draft EIS
Valley Utilities Water Company – Proposed CAP Allocation

Alternative	Allocation (in afa)	Priority
Settlement Alternative	250	M&I
No Action	0	-
Non-Settlement Alternative 1	250	M&I
Non-Settlement Alternative 2	0	-
Non-Settlement Alternative 3A	0	-
Non-Settlement Alternative 3B	273	NIA
Existing CAP Allocation	-	-

Figure L-M&I-62 shows the service area for the Valley Utilities Water Company, which covers approximately 467 acres. The Valley Utilities Water Company is in the process of developing plans to take and use their proposed CAP allocation. Potential options include wheeling through the City of Glendale's system or assigning their proposed allocation to the CAGRD and continuing to pump existing wells (Prince 2000).

B. Population Projection

The estimated 2001 population level for the Valley Utilities Water Company service area is 7,726 and the estimated 2051 population level is 18,445.



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CAP Allocation Draft EIS
General Location Map
Valley Utilities Water Company

June 2000

Figure #L-M&I-62

C. Water Demand and Supply Quantities

As previously shown in Appendix C–M&I Sector Water Uses, it is estimated that water demand in the Valley Utilities Water Company service area would increase from 1,093 af in year 2001 to 2,609 af in year 2051. The projected water uses both by water source and alternatives are provided below in Table L-M&I-124. Based on these anticipated water demands, the CAP water which would be allocated under the Settlement Alternative would provide 23 percent and 10 percent of the current estimated water supply required for the Valley Utilities Water Company for the years 2001 and 2051, respectively.

Table L-M&I-124
CAP Allocation Draft EIS
Valley Utilities Water Company – Projected Water Use

Alternative	Annual CAP Deliveries		Groundwater		Effluent		CAGRD (Groundwater)		Total Demand	
	2001	2051	2001	2051	2001	2051	2001	2051	2001	2051
Settlement Alternative	250	250	0	0	0	0	843	2,359	1,093	2,609
No Action	0	0	0	0	0	0	1,093	2,609	1,093	2,609
Non-Settlement Alternative 1	250	250	0	0	0	0	843	2,359	1,093	2,609
Non-Settlement Alternative 2	0	0	0	0	0	0	1,093	2,609	1,093	2,609
Non-Settlement Alternative 3A	0	0	0	0	0	0	1,093	2,609	1,093	2,609
Non-Settlement Alternative 3B	250	250	0	0	0	0	843	2,359	1,093	2,609

Note: A more detailed breakdown of supplies may be found in Appendix C.

It is estimated that the demand for water at the end of the CAP contract period would be approximately 2,609 af. For all alternatives, there is estimated to be no unmet demand. In the Settlement Alternative, Non-Settlement Alternative 1 and 3B, 250 afa of demand are met by the additional CAP allocation. Alternatively, this 250afa of demand are met by CAGRD membership under the No Action Alternative and Non-Settlement Alternative 2 and 3A.

D. Environmental Effects

The following sections include a general description of existing conditions relating to land use, water resources and socioeconomics for each entity. The following summaries also include a description of the existing conditions and brief description of the impacts to biological and cultural resources that would result from construction of CAP delivery facilities and conversion of desert and agricultural lands to urban uses.

1. Land Use

Land use data for the Valley Utilities Water Company were obtained based upon the review of 1998 aerial photographs and the result of the field surveys and habitat mapping completed as part of the biological analysis in this EIS. Table L-M&I-125 provides the projected acres of land within the Valley Utilities Water Company service area which are agriculture, desert or urban and the number of acres expected to change from the existing category for the years 2001 and 2051.

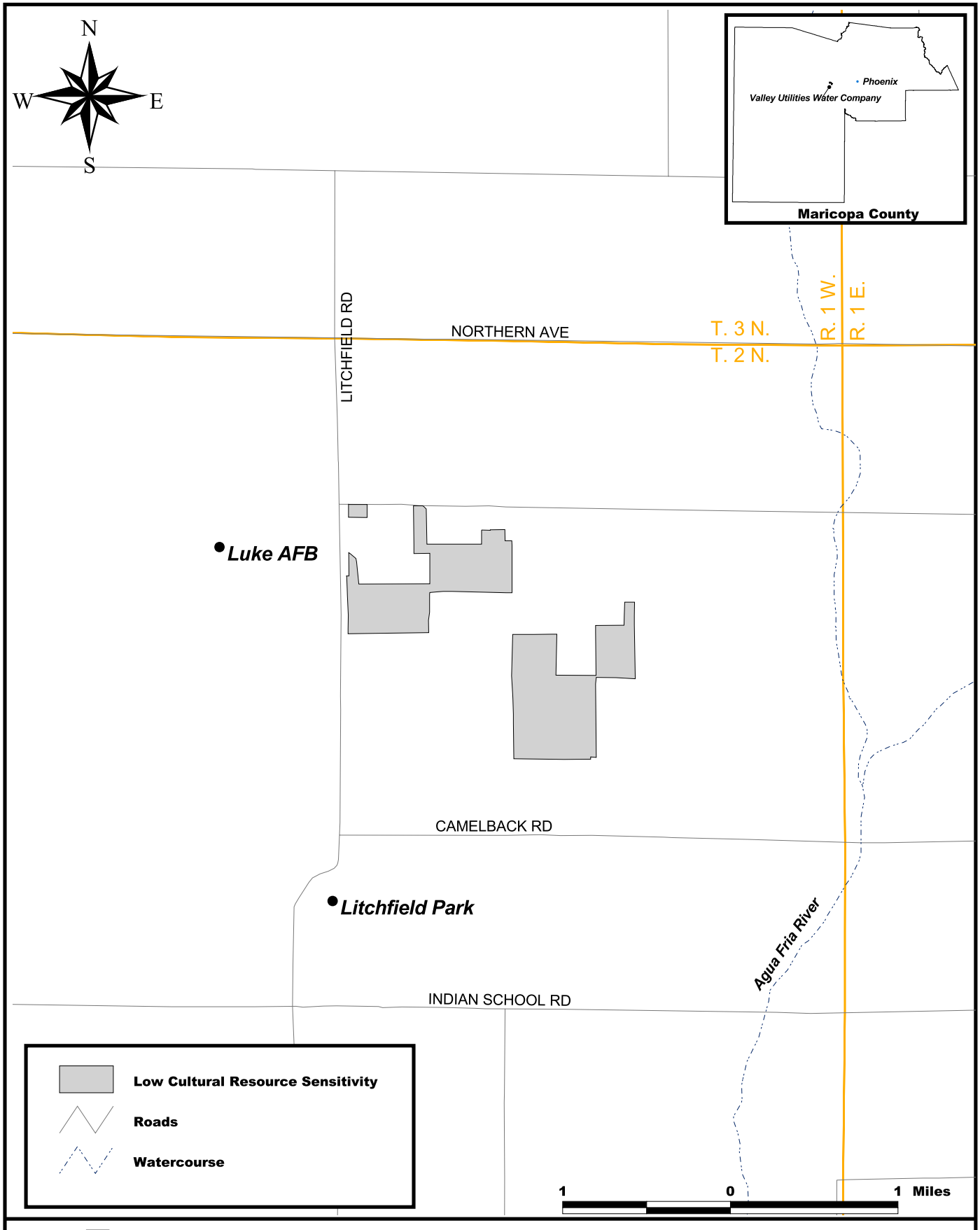
TableL-M&I-125
CAP Allocation Draft EIS
Valley Utilities Water Company – Projected Land Use Changes Within the Service Area (in acres)

Alternative	Year	Agriculture	Agriculture Urbanized	Desert	Desert Urbanized	Urban	Changes in Urban Acreage
Settlement Alternative	2001	0	--	19	--	448	--
	2051	0	0	19	0	448	0
No Action	2001	0	--	19	--	448	--
	2051	0	0	19	0	448	0
Non-Settlement Alternative 1	2001	0	--	19	--	448	--
	2051	0	0	19	0	448	0
Non-Settlement Alternative 2	2001	0	--	19	--	448	--
	2051	0	0	19	0	448	0
Non-Settlement Alternative 3A	2001	0	--	19	--	448	--
	2051	0	0	19	0	448	0
Non-Settlement Alternative 3B	2001	0	--	19	--	448	--
	2051	0	0	19	0	448	0

2. Archaeological Resources

The southernmost parcel within the Valley Utilities Water Company service area was previously surveyed; no other projects have occurred within the area. Although several sites have been documented to the west, none was recorded within the service area. The Arizona Canal, a National Register-eligible property, borders the service area on the east (Aguila 1998). Historic sites associated with its construction might be expected.

Cultural resource sensitivity areas in the service area are shown on Figure L-M&I-63. Based on the limited data used to generate the cultural sensitivity designations, the potential for cultural resource impacts in the Valley Utility Water Company service area is low. Mitigation of cultural resource impacts due to urban expansion would be determined by local jurisdictions and development of applicable permit requirements (such as the CWA Section 404 permit). Impacts on cultural resources due to future land use changes would be identical for each of the five alternatives. Mitigation for such impacts would be



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CAP Allocation Draft EIS
Cultural Resources
Valley Utilities Water Company

June 2000

Figure #L-M&I-63

dependent on the requirements of the local jurisdiction. Based on their potential options to use existing facilities, significant cultural resource impacts are not expected. Reclamation would carry out additional cultural resource compliance as appropriate, prior to water delivery.

3. Biological Resources

Existing Habitats

Almost no natural habitat remains within the Valley Utilities Water Company service area (elevation approximately 1,100 feet). Most of the area has been developed for urban use. Some Creosote-Bush Association remains in undeveloped lots within residential areas. The habitat zones located in the Valley Utilities Water Company service area are shown on Figure L-M&I-64. Table L-M&I-126 provides the habitat acreages in the Valley Utilities Water Company service area for the habitat zones described above.

TableL-M&I-126
CAP Allocation Draft EIS
Valley Utilities Water Company – Habitat Acreages

Vegetation Name	Acres
Developed	448
Creosote-Bush	19
Total	**467**

Impacts to Biological Resources

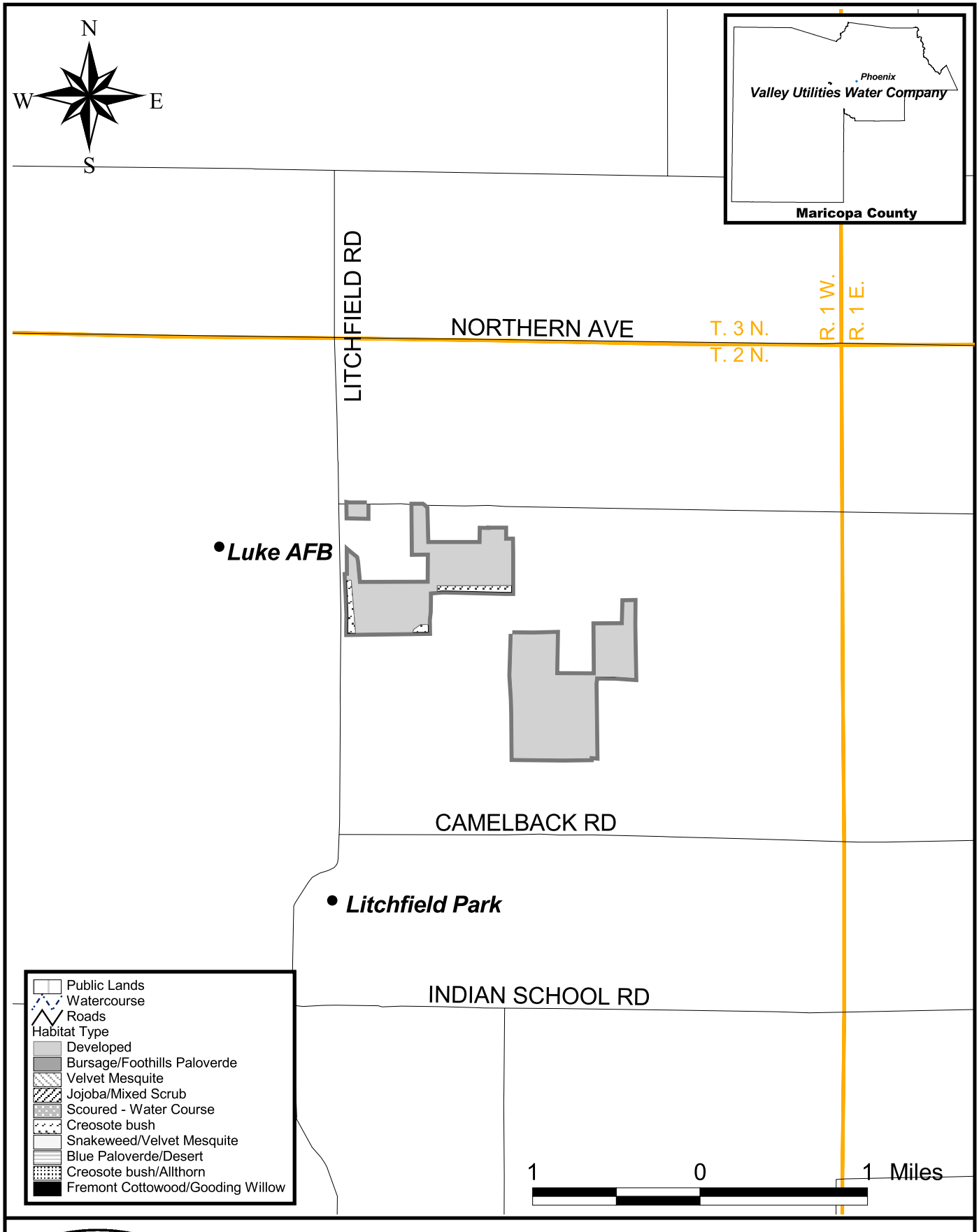
Under the No Action Alternative, urban growth within the Valley Utilities Water Company service area over the 50-year study period would result in no increased loss of natural habitat. Under the action alternatives, there is no difference in impacts from the No Action baseline. With regard to construction of CAP delivery facilities; Reclamation would carry out additional environmental review once plans are developed. However, based on the potential to use existing facilities, significant impacts are not expected.

Potential T&E Species and Acres of Potential T&E Species Habitat

There is no potentially suitable habitat for T&E species within the Valley Utilities Water Company service area.

4. Water Resources

Demands in the Valley Utilities Water Company have historically been met by pumping groundwater from the underlying basin fill. The Valley Utilities Water Company is in an area of relatively intensive groundwater development, and substantial declines in groundwater levels have been experienced that have formed the Luke Cone groundwater



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CAP Allocation Draft EIS
Habitat Zones
Valley Utilities Water Company

June 2000

Figure No. L-M&I-64

level depression. These declines have resulted in subsidence in this area. The concentration of TDS in the underlying groundwater can range from 1,000 to 3,000 ppm.

Estimated groundwater level impacts are summarized in Table L-M&I-127, which shows estimated groundwater level change for the period from 2001-2051 as well as the groundwater level impacts or the difference between the change in groundwater levels for each alternative relative to the change for the No Action Alternative. Under the No Action Alternative, groundwater levels would decline by about 136 feet from 2001 to 2051. This decline reflects the continued reliance on groundwater supplies in the vicinity of the Valley Utilities Water Company. However, that decline is moderated by the influence of direct recharge of CAP water which would occur in the nearby Agua Fria Recharge Project, and in future West-side recharge facilities. Increases in TDS concentrations could occur due to both the northward movement of poorer quality water from the south, and due to lowering of groundwater levels in the vicinity of the Luke salt dome. The lower groundwater levels could also result in continued subsidence.

Groundwater levels under the Settlement and Non-Settlement Alternatives would also decline over the 2001 to 2051 period. These declines would be greater than the declines under the No Action Alternative and could result in greater declines in groundwater quality and in additional subsidence relative to the No Action Alternative. The larger declines in groundwater levels primarily occur due to reduced direct recharge of CAP water under the Settlement and Non-Settlement Alternatives relative to the No Action Alternative.

Table L-M&I-127
CAP Allocation Draft EIS
Valley Utilities Water Company –Groundwater Data Table

Alternative	**West Side M&I ***	
	Estimated Groundwater Level Change from 2001-2051 (in Feet)	**Groundwater Level Impact** (in Feet)**
No Action	-136	--
Settlement Alternative	-198	-62
Non-Settlement Alternative 1	-147	-11
Non-Settlement Alternative 2	-157	-21
Non-Settlement Alternative 3A	-185	-49
Non-Settlement Alternative 3B	-172	-36

*Values correspond to the West-side M&I sub-area, as discussed in Appendix I.
** Computed by subtracting the estimated groundwater decline from 2001 to 2051 for the No Action Alternative from the estimated change in groundwater level for the same period for the alternative under consideration. The estimated impact is considered to be more accurate than the estimated decline in groundwater levels.

5. Socioeconomic

The same population growth is supported under all alternatives, including the No Action Alternative. However, the cost of providing water may vary by alternative. Costs were estimated, on a per af basis, for providing the proposed allocations and, in their absence, alternative water supplies. The alternative water supplies include joining the CAGRD and, as needed, treating and reusing effluent. The difference in cost for this small increment of Valley Utility Water Company's total water supply is considered insignificant. It should be noted that the increment of demand met by the proposed CAP allocation is approximately 9.6 percent of the total year 2051 demand for Valley Utility Water Company.

Table L-M&I-128
CAP Allocation Draft EIS
Valley Utilities Water Company–Cost of Potable Water for Additional Allocation Increment

Alternative	Cost of Water ($ per af)	Water Source
Settlement Alternative	154[a]	CAP Allocation
No Action	229 – 238[b]	CAGRD
Non-Settlement Alternative 1	154[a]	CAP Allocation
Non-Settlement Alternative 2	229 – 238[b]	CAGRD
Non-Settlement Alternative 3A	229 – 238[b]	CAGRD
Non-Settlement Alternative 3B	154[a]	CAP Allocation

Notes:
a. Estimated average unit cost in year 2000 dollars.
b. Estimated range of unit costs in year 2000 dollars. Range is due to estimated change in groundwater pumping lifts during study period.